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Worksite Health Promotion in Colorado

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THE WORKSITE HAS BECOME the target of numerous groups seeking to improve the health of the adult population. In 1979, the Public Health Service's Office of Health Information and Health Promotion held the first national conference to focus attention on health promotion in occupational settings. "Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention" cites the workplace as an "appropriate setting for health promotion" (*1*). "Promoting Health/Preventing Disease: Objectives for the Nation" recommends specific worksite health promotion and health protection measures (*2*). Recently, the Department of Health and Human Services awarded a contract to Research Triangle Institute, Research Triangle Park, N.C., to provide for a definitive evaluation of the effectiveness of worksite health promotion programs.

Complementary private sector efforts have likewise intensified in recent years. Foundations have awarded grants for the development of pilot programs in occupational settings. A number of business coalitions, such as the Washington Business Group on Health, have formed to promote the dual objectives of cost-containment and improved employee health. The insurance industry, with the advice of medical experts, has produced motivational and technical materials to urge and help businesses to develop worksite health promotion and disease prevention programs.

Activities in Colorado have followed a pattern similar to that at the national level. The State Health Department, supported by Federal funds, has offered technical assistance to businesses to encourage the development of worksite hypertension screening and general cardiovascular risk-reduction programs for employees. In 1978, the Gates Foundation sponsored a statewide conference for leaders of major Colorado institutions, to examine the role that lifestyle programs could play in containing health care costs and improving the health of employees, clients, and constituents. Beginning in 1980, foundation funds were used to establish a nonprofit corporation, the Institute for Health, to assist businesses in decisionmaking and program management related to health promotion and disease prevention activities for their employees. Local hospitals, health departments, and community agencies developed worksite health promotion service packages that were made available to area businesses.

The rationale for worksite programs, their benefits, and strategies for implementing them have been clear to

the advocates of health promotion, yet the response from business and industry in Colorado has been less than overwhelming. A number of programs were developed and were recognized as being exemplary by the Governor's Council on Health Promotion and Physical Fitness. These included programs at Coors, Western Federal Savings and Loan Association, Eastman-Kodak, Penrose Hospital, JHB International, and Petroleum Information Systems. But the "cadre of the convinced" appears to remain relatively small and stable. Few inroads have been made into the vast majority of businesses in the State.

To provide a better understanding of this limited success and make possible better tailoring of service packages to businesses, more information was needed regarding current program efforts and perceived incentives and obstacles to further program development. To determine the level of activity within the State, the Colorado Department of Health and the Institute for Health, in collaboration with several voluntary health agencies and private sector organizations, conducted a survey of worksite health promotion and disease prevention (HPDP) programs in Colorado. General purposes of the survey were (*a*) to develop a profile of business and industry HPDP programs in Colorado, and (*b*) to identify obstacles and incentives to the further development of such programs.

Methodology

A listing of all Colorado employers with 50 or more employees was obtained from the Colorado Department of Labor and Employment. The list contained company names, location by county, type of business, and number of employees. A stratified random sample was drawn as follows:

Size of company	*Number of companies in sample*
50–99 employees	136
100–249 employees	149
250–499 employees	150
500–999 employees	141
1,000 or more employees	103
Total	679

Because of the small number of large businesses in the State, all companies with 500 or more employees were included in the sample. Previous studies had suggested that smaller companies were less likely to have organized, multiphasic health promotion and disease prevention programs (*3,4*). For this reason, businesses with fewer than 50 employees were excluded from the sample. The final sample included both private business and public agencies.

'While many of the programs began primarily with "bottom line" concerns, reasons for program continuation reflected greater emphasis on morale and productivity and a response to employee interest.'

Trained volunteers contacted the chief executive officer of each company selected in the sample. The HPDP survey was briefly explained. Interviewers asked to be referred to the person most knowledgeable about the company's efforts in these areas. A phone call was then made to this identified contact person to determine (*a*) if the company had an HPDP program, or (*b*) if the company was interested in developing such a program. If neither of these conditions existed, the interviewer thanked the contact person and terminated the process. If either of these conditions existed, the company was considered "eligible"; the contact person was asked if he or she would be willing to participate in the project; and a time for a telephone interview was established.

A packet including a questionnaire, an explanatory cover letter, and a letter signed by the Governor of Colorado was sent to each company contact person. Companies that had programs received a long form of the questionnaire. Companies that did not have programs but were interested in developing them received an abbreviated form of the same questionnaire. Ten days were allowed for receipt of the packet and gathering of program information by the contact person. This person was then recontacted by the interviewer and a 15- to 25-minute interview was completed.

Of the 679 companies in the original sample, 321 were excluded for the reasons summarized here:

Reasons for exclusion	*Number of companies*
Phones disconnected or no listing	54
Repeats within sample listing	76
Wrong size or out of State	81
No HPDP program or no interest in developing program	110
Total	321

From the sample of 358 eligible companies, 300 interviews were completed, for an overall response rate of 83.8 percent. (Nine companies refused to participate initially; 49 refused after the survey was sent to them or provided incomplete returns.)

A company was considered to have an HPDP program if it provided health screenings, classes, or preventive health services on an ongoing basis. Of the 300 private businesses and public agencies participating in the survey, 94 had HPDP programs. The remaining 206 com-

panies did not have such programs but expressed interest in developing them.

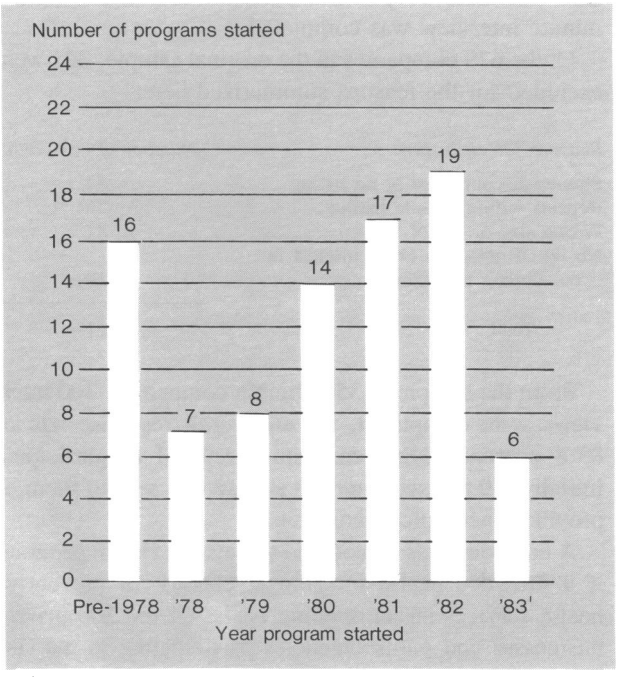
Size of company	Number of companies participating: Had HPDP program	Number of companies participating: Interested in starting program
50–99 employees	2	33
100–249 employees	7	57
250–499 employees	19	42
500–999 employees	22	36
1,000 or more employees	44	38
Total	94	206

Findings

The vast majority of HPDP programs in Colorado are less than 5 years old. An upswing in program development began in 1978. Fifty-five percent of the programs were started between 1980 and 1983 (chart).

Improving employee health and reducing health problems was the most common reason cited for starting an HPDP program (table 1). Reducing health care costs, improving employee morale, reducing turnover and absenteeism, and improving productivity were cited as important reasons by more than half of the companies interviewed. To respond to employee demand or interest, to be part of an innovative trend in health care, and to improve public image were cited as reasons by fewer than one-third of the companies.

When health promotion and disease prevention programs were started



[1]Starts in 1st quarter of 1983

Table 1. Reasons given by companies for starting health promotion and disease prevention programs

Reason	Companies with existing programs (percent)	Companies interested in starting programs (percent)
To improve health and reduce health problems	82	68
To improve employee morale	59	52
To reduce health care costs	57	67
To reduce turnover and absenteeism	51	57
To improve productivity	50	64
Response to employee demand or interest	33	20
To be part of innovative trend	32	11
To improve public image	20	18

Companies with established programs were asked to list factors considered in the decision to continue the program. Increased employee knowledge, level of employee interest, reduced health problems, improved productivity, and cost containment surfaced as factors in program continuation for more than 50 percent of the companies.

HPDP activities. Health promotion and disease prevention activities were categorized under three major headings: screening, information programs, and preventive health services (table 2). Pre-employment medical examinations and high blood pressure screening were the most common screening activities carried out by companies with established programs. General health and cardiovascular risk appraisal, height and weight screening, and screening for work-related health problems were offered by approximately 50 percent of the companies. Screening for cancer was carried out by less than a quarter of the companies.

Exercise, stress management, smoking, and nutrition were the most common topics for information programs, followed closely by such topics as alcohol and drug abuse, high blood pressure, low back pain, and prevention of work-related injuries. Seatbelt-use programs were conducted by only one-third of the companies.

Group and individual instruction in exercise and stress management were the most frequent services offered by three-fourths of the companies with programs. Two out of three companies had either an employee assistance program or an industrial alcoholism program. Approximately 75 percent of these programs provided in-house problem assessment, short-term counseling, and follow-up. More than 90 percent of these programs included referrals to outside agencies.

The 206 companies interested in developing HPDP programs were asked what types of activities they would

Table 2. Types of health promotion and disease prevention activities companies offered or were interested in offering

Activity	Companies with existing programs (percent)	Companies interested in starting programs (percent)
Screening[1]		
Pre-employment medical examination	72	47
High blood pressure	71	84
General risk appraisal	55	78
Height and weight	53	43
Screening for work-related problems	49	62
Annual medical examination	37	39
Pulmonary function test	33	43
Diabetes	30	30
Colon and rectal cancer	25	18
Cervical cancer	16	12
Information programs[2]		
Exercise	78	82
Stress	77	88
Smoking	75	85
Nutrition	73	66
Alcohol and drug abuse	67	83
High blood pressure	67	84
Low back pain	65	62
Work-related injury	65	75
Cancer prevention and detection	48	56
Breast self-examination	43	44
Cervical cancer screening	16	12
Seatbelt use	30	33
Services[3]		
Exercise	80	72
Stress management	77	81
Weight management	67	62
Smoking cessation	63	72
Low back pain	54	58
Self-defense for women	27	27
Employee assistance program	55	42
Industrial alcoholism program	28	28

[1] Offered onsite on a regular basis.
[2] Includes speakers, materials, and exhibits.
[3] Includes group instruction, individual counseling, or referral to community resources.

include in their programs. Responses indicated that their activities would follow basically the same pattern as those of established programs (table 2).

One major difference between companies with programs and those interested in starting them was that a general employee health service was provided by 60 percent of companies with programs but by only 34 percent of the others. Companies with employee health services were more likely to provide pre-employment medical examinations. Companies interested in developing programs would be more likely to use health risk appraisals, as they can be used as a needs assessment instrument or as an education and motivation intervention for employees.

Company policies. Two-thirds of the companies with established programs had one or more policies designed to promote participation in the HPDP program. These policies included payment by the company of the cost for onsite activities (65 percent); release time (60 percent); flex-time (33 percent); and incentives such as money, awards (22 percent), and reimbursement for offsite activities (19 percent).

Policies to control or eliminate smoking at the worksite were reported more frequently by companies that had HPDP programs than by companies that did not have such programs. Fifty-six percent of companies with programs had smoking policies versus 38 percent of companies interested in starting programs. A higher percentage of private businesses than of public agencies had policies to control or eliminate smoking.

The 131 companies that had smoking policies were queried as to reasons for adopting such policies. Responses included: necessary because of safety factors (53 percent), to better meet needs of nonsmoking employees (48 percent), promotion of employee health (44 percent), necessary because of product produced (37 percent), to enhance public image (37 percent), and necessary because of sensitive equipment (27 percent).

Program management. The decision to offer an HPDP program emanated from various departments within a company, including personnel/human resources/benefits (30 percent), chief executive officer or top administrator (26 percent), team from various departments (20 percent), medical/health/safety services (16 percent), and others or unknown (8 percent). Two out of three companies with established programs had a line item for health promotion or disease prevention in the budget.

Once the HPDP program was underway, the responsibility for its management was likely to be given to medical/health/safety services or personnel/human resources/benefits departments, or both. The majority of HPDP programs were operated using part-time, in-house staff. Few companies had a full-time coordinator. This pattern can be expected to continue, since two-thirds of the companies interested in developing programs stated that they would use in-house staff and arrange for free services from community agencies in specific program areas.

Community agencies that had been or would be utilized by more than 50 percent of businesses included the American Cancer Society (81 percent), Colorado Heart Association (78 percent), American Lung Association (70 percent), American Red Cross (67 percent), State health department (62 percent), local hospitals (59 percent), and county health departments (50 percent). Fewer than one-fourth of all companies would be willing to pay for any type of outside service, including awareness

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sessions, training for staff, review of insurance data, or general program design and evaluation. Only 5 percent of companies planning programs would purchase a package from a proprietary agency.

Program outcomes. Improved employee morale was perceived as the single most common benefit of an HPDP program. Other commonly perceived benefits included improved employee health, reduced illness and injury on the job, and increased productivity.

Benefit	*Percent of companies perceiving benefit*
Improved employee morale	81
Improved employee health	52
Improved productivity	46
Reduced illness and injury on the job	46
Reduced employee turnover and absenteeism	40
Reduced medical care utilization	30
Reduced health care costs	23
Attracted better caliber applications	17

While employers perceived numerous benefits from HPDP programs, few records were kept to document program outcomes. Level of employee participation was the most common evaluation measure, collected by three out of four companies. A third of the companies kept records of absenteeism and turnover. Twenty percent of the programs measured participants' health practices before and after the program. Only 7 percent measured employee productivity before and after the program.

Size factor. Statistical tests were used to determine if program goals, activities, company policies, management practices, or perceived benefits varied by size of company. The only significant difference was that large companies were more likely than smaller ones to employ in-house medical staff and offer pre-employment physicals.

Discussion

The major limitations of this study reflect general limitations within the field of worksite health promotion. There are no generally accepted criteria as to what constitutes a worksite health promotion or disease prevention program. Program components as well as level and frequency of activity vary among companies that claim to have established programs. For the purpose of the survey, a company was considered to have an HPDP program if it provided screenings, information programs, or preventive health services on an ongoing basis. Persons interviewed were provided with general program definitions and a brochure giving general background information and examples of worksite programs. Nevertheless, loose definition and subjective interpretation by respondents may have resulted in the inclusion of companies that do not truly have programs and the exclusion of other companies whose level of activity might have merited their inclusion in the survey.

The results of the survey, limitations notwithstanding, provide an interesting profile of worksite HPDP program goals, activities, management practices, evaluation methods, and perceived program outcomes.

Level of interest. The survey demonstrated a high level of interest in HPDP programs among private businesses and public agencies alike. Nearly two-thirds of the companies contacted either had established an HPDP program or were interested in developing such a program. Level of interest was consistent across size categories. Even small companies that could not afford an in-house medical system were interested in offering HPDP programs. Although there are no baseline data against which to compare, it appears that this high level of interest is a recent phenomenon: the majority of programs in Colorado are less than 5 years old.

Size of company. Size of company appeared to be a major factor in determining whether or not an HPDP program was offered. Over 40 percent of large companies (companies with more than 1,000 employees) had programs; another 40 percent expressed interest in developing such programs. While large companies provide showcase programs, they reach only a small percentage of the workforce. Eighty-five percent of employed persons in Colorado work in companies with fewer than 1,000 employees. Over half of smaller businesses are interested in developing HPDP programs, yet less than 5 percent currently offer such programs.

Despite size differences, HPDP programs in large and small industries were strikingly similar in almost all respects. They had similar goals, focused on the same topic areas, adopted similar company policies, and demonstrated similar management and program evaluation practices.

Activities. The profile of activities was as expected. The exception was the lack of seatbelt-use programs. Given the disability and mortality associated with automobile accidents and the ease of introducing such programs, it is surprising that more companies do not develop policies and programs that promote seatbelt use among employees and their families.

Program management. The majority of HPDP program decisions were made by top administrators and persons in personnel/human resources/benefits departments. In less than 20 percent of the companies, the decision was made solely by persons in the health services units. If programs are to be expanded, it would appear that more effort must be directed toward reaching personnel administrators and top management with pertinent information.

Program outcomes. Over 80 percent of companies reported improved employee morale as a perceived benefit of health promotion. Although this perception is not based on irrefutable evidence, it is consistent with findings in Fielding and Breslow's recent study of California businesses (*4*). While many of the programs began primarily with "bottom line" concerns, reasons for program continuation reflected greater emphasis on morale and productivity and a response to employee interest.

Commitment of resources. The commitment of resources to HPDP programs appeared tentative at best. The majority of programs were run by existing staff on a part-time basis. Many relied heavily on free community resources. Companies recognized a need for staff training sessions, advice in review of insurance data, and general technical assistance in program design and evaluation, yet less than one-quarter of the companies expressed a willingness to pay for these program improvement services. Lack of commitment of adequate resources at the outset may jeopardize a program's chances for success.

The survey began as a joint public-private effort to profile worksite HPDP programs in Colorado and better understand barriers and incentives to further program development. Results of the survey have been presented to leaders from business, community agencies, foundations, and the public sector. It is hoped that these actions will strengthen and support efforts within Colorado to develop a cooperative public-private worksite health promotion and disease prevention initiative.

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